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GENEALOGY OF AN INVENTION.

In the lower part of the beautiful valley of the Nith, where the hills sink into the great plain skirting the Solway Firth—amidst beautiful woods and corn-fields, stands out the goodly mansion of Dalswinton. The Nith is seen pressing on with sparkling flow through the centre of the vale; and the classical associations of the rambler are excited when his attention is directed to a small farm-steading on the opposite bank, as that which Burns for a time occupied, in one of the calmer and happier parts of his melancholy career. The first rises of the country above the meadows through which the river runs, are in gravel terraces and knolls, the record of a time when this valley was an estuary receiving the discharge of rivers and rivulets. The house is perched on one of these knolls, and in a hollow of the terrace behind, reposes a small willow-fringed, heron-haunted lake or mere, where youth may amuse itself with boating in summer and with skating in winter. This is a lake with a history.

Sixty-six years ago, in the middle of an October day, an unusual assemblage, amounting to hundreds of people, might have been seen on its banks. Many of them are of the peasantry and yeomanry of the neighbourhood; others are country gentlemen, and among these is conspicuous the Laird of Dalswinton, an intelligent-looking man in middle life, bearing rather a city than a country air, for it was only lately that he forsook the life of a banker in Edinburgh, and came to reside in this place. In close attendance on him is a genteel-looking young man, the preceptor of his younger boys; and with him, again, is associated a plain artisan-like person, of active and intelligent appearance, whom all seem to regard as a somebody of great account on the occasion. One might have at first thought that it was a party met for some rural sport, and he would probably have been at a loss to understand the nature of the amusement to be indulged in. But had he looked more narrowly, he might have seen, from the speculative, wondering, half-incredulous looks of many of the assembly, that something quite unusual was going, or about to go on.

Speedily, the assemblage gathers close to the lake, and concentrates attention upon a small vessel which floats near the shore. There is something very odd and uncommon about this vessel, for it is composed of two boats of about twenty-five feet long, joined together, and the upper outline is broken by a pile of machinery surmounted by a short funnel for smoke. The laird, and the preceptor, and the clever-looking artisan, and some few others, go on board this strange craft; and presently, while the multitude looks curiously

on, a smoke is seen to issue from the funnel, a splashing as of paddles is heard to take place between the united parts, and the boat glides slowly along the lake, leaving a white wave behind it. A huzza bursts from the crowd, and there is a rush along the bank, in attendance on the rapid progress of the little vessel. 'Well, it does go!' say some, as if for the first time convinced of what they had previously regarded as an impossibility. 'Who would have thought it?' cry others. And so pass the remarks, while the vessel, with its little adventurous company, moves backwards and forwards, and round and round, over the bosom of the lake—the first exemplification, ladies and gentlemen, of that wonderful thing of our day, STEAM-NAVIGATION!

Patrick Miller, the laird above spoken of, was a remarkable man. Of aristocratic birth and connection, he had devoted an active and ingenious mind to banking in Edinburgh, and had realised a large fortune, on which, however, he set little value except as a means of enabling him to work out schemes for the benefit of the public. For some time, in his house in Edinburgh, or in the solitude of his newly acquired mansion at Dalswinton, he had speculated on the possibility of navigating a vessel by some more certain mechanical means than oars and sails, and he had actually exhibited a triple vessel at Leith, having rotatory paddles in the two interspaces, driven by a crank, and wrought by four men. The public looked on with its usual pity for a man of talents and character throwing himself away in wild and hopeless schemes; but still he persevered. One day, he had out his boat on the Firth of Forth, in order to try its powers against a fast-sailing custom-house wherry. It made very good way, and the wherry, in returning with a fair wind from Inchcolm to the harbour of Leith—six or seven miles—was beat by a few minutes. Mr Miller was well pleased with this success; but his boys' preceptor, Taylor, who had taken his turn at the wheels, and felt how violent was the exertion necessary to sustain the speed of the vessel, was now convinced that without a more commanding power than that of men, the invention would be of little use. He took an opportunity of making a remark to this effect to Mr Miller, and found him willing to listen to any suggestion. In their conversations, they chiefly discussed the powers of the capstan, which seemed the best expedient presented by ordinary mechanics. At length, Taylor one day came out with—'Mr Miller, I can suggest no power equal to the steam-engine, or so applicable to your purpose.' The other was startled, and some practical objections occurred to him; but he at length agreed that an experiment should be made, and under Taylor's care, for Mr Miller confessed that he was quite unacquainted with the

steam-engine. In a detailed account of his Triple Vessel, which he published in February 1787, he made a hopeful allusion to the idea of taking motion from a steam-engine to be placed on board. A copy of this small work, with suitable illustrations, was sent to various public libraries, and to each of the sovereigns then reigning in Europe.

Mr Miller had resolved that the trial with the steam-engine should be made on board a new double-boat which he had lately set down for the amusement of his family on the lake at Dalswinton. Mr Taylor, at his employer's request, got all the arrangements made under the care of one William Symington, whom he knew as an ingenious mechanic. The engine prepared on the occasion was a small one, having four-inch cylinders of brass, made after the fashion of a patent of Symington's, by George Watt, brassfounder in the Low Calton, Edinburgh. The whole being duly arranged on board the twin-boat at Dalswinton, the trial took place, October 14, 1788, under the circumstances which have been detailed, and with entire success.

At that time, the idea was wholly a novelty to the British public. No one then living in our islands is known to have had the faintest conception of that application of steam to navigation which Taylor had suggested, and he and Symington had together worked out upon Mr Miller's paddle-vessel. Subsequent investigation has shewn that Jonathan Hulls had taken a patent in 1736 for a tow-boat having a rotatory paddle extended from its stern, which was to be put in motion by a small steam apparatus placed in the body of the vessel; but all recollection of that invention was long dead. It has likewise been ascertained that the idea of applying the steam-engine to vessels had occurred to several persons in other parts of the globe. In France, the Abbé Arnauld and the Marquis de Jouffroy had made experiments to shew its practicability in 1781. Two years later, a Mr Fitch tried a species of steam-boat on the Delaware river in America, propelling the vessel by paddles. The celebrated Franklin was disposed to encourage the plan, and a countryman of his, named Rumsey, endeavoured to work it out, but by means of a vertical pump in the middle of the vessel, by which the water was to be drawn in at the bow and expelled at the stern, through a horizontal trunk in her bottom. It was indeed natural that a motive-power so obvious should be thought of with regard to vessels by many of that class of persons who delight in devising new ways and means for all familiar things. But at the time when Messrs Miller and Taylor began their experiments, the few previous efforts which had actually been made were lost sight of in utter failure, and certainly were unknown to those gentlemen. It may be mentioned that an American, named Oliver Evans, had for some years been experimenting for the application of steam to travelling carriages; and the above-mentioned William Symington had actually had a steam-carriage going on the common roads at Wanlockhead, in Lanarkshire, during the summer of 1787. But the Dalswinton invention stands decidedly apart from that of such steam-carriages, as one which has been, what the other is not, practically useful to mankind.

A paragraph of a few lines, in the dry, brief manner of the day, recorded the transaction which we have described; and probably few read this with any conception of the immense force which lay under that fête on Dalswinton Lake. The gentlemen concerned amused themselves with their steam-driven pleasure-boat for a few days, and then Mr Miller had the engine taken out and deposited in his house as a curiosity. The winter was coming on, and no further steps could be taken immediately; but early next summer he resolved to try an experiment on a larger scale. A double-vessel belonging to him, 60 feet long, was taken from Leith to Carron, and there fitted up, under Symington's care, with an engine (18-inch cylinders), and on Christmas-

day 1789, this vessel was propelled by steam on the Forth and Clyde Canal, at the rate of seven miles an hour, in the presence of a vast multitude of spectators.

Mr Miller, unfortunately, had become disgusted with Symington, and was further vexed by the unexpectedly large outlay he had incurred at Carron, as well as by a certain miscalculation which resulted in making the machinery too heavy for so slight a vessel. He therefore paused. It had been his wish to try a third experiment with a vessel in which he should venture out into the ocean, and attempt a passage from Leith to London; but in the new state of his feelings this was not to be further thought of. By and by, his estate called for a large share of his attention and means. A delusive article of culture, called Fiorine Grass, began almost exclusively to occupy his mind. He lost sight of the wonderful power which he had called forth into being, and which was destined, in other hands, to perform so important a part.

Taylor, being without patrimony, and properly a scholar, not a mechanic, was unable to do anything more with steam-navigation. Symington was the only person concerned in the first experiments who persevered. His doing so is creditable to him, but the manner in which he did it cannot be so considered; for, without any communication with Messrs Miller and Taylor, the true inventors, he took out a patent for the construction of steam-boats in 1801. Through the interest of Lord Dundas, he was enabled, in 1803, to fit up a new steam-boat for the Forth and Clyde Canal Company; and this vessel, yeelp the *Charlotte Dundas*, was tried in towing a couple of vessels upon the canal with entire success, excepting in one respect, that the agitation of the water by the paddles was found to wash down the banks in an alarming manner. For that reason, the Canal Company resolved to give up the project, and the vessel was therefore laid aside. It lay on the bank at *Lock Sixteen* for many years, generally looked on, of course, as a monument of misdirected ingenuity; but, as we shall presently see, it did not lie there altogether in vain. Meantime, Symington was for awhile amused with hopes of inducing the Duke of Bridgewater to take up the project, and work it out upon his canals in England; and the duke had actually given an order to have the experiment tried, when, unfortunately, his death closed that prospect. Here Symington vanishes likewise from the active part of the history. The project of 1787-8 has left no memorial of itself but the rotting vessel at *Lock Sixteen*.

The experiments at Carron in 1789 had been witnessed by a young man named Henry Bell, a working-mason originally, as it appears, afterwards a humble kind of engineer at Glasgow, and a busy-brained, inventive, but utterly illiterate man. Bell never lost sight of the idea, and when Symington ceased experimenting in 1803, he might be said to have taken up the project. At the same time, an ingenious American comes into the field. Robert Fulton, originally an artist, but an amateur mechanic of great ingenuity, a man, moreover, of extraordinary energy and courage, had thought of steam as a motive-power for vessels so early as 1793. A countryman of his, Chancellor Livingston, had also entertained the idea, and in 1798, had obtained from the legislature of New York State an act vesting in him the exclusive right of navigating vessels with steam in that territory, notwithstanding an opposition on the ground of its being 'an idle and whimsical project, unworthy of legislative attention.' It appears that the scheme was 'a standing subject of ridicule in that assembly, and whenever there was a disposition in any of the younger members to indulge in a little levity, they would call up the steam-boat bill, that they might divert themselves at the expense of the project and its advocates.'* The practical objections of sober-minded

* *Golden's Life of Robert Fulton.* New York. 1837.

men were, that the machinery would be too weighty for the vessel, require too much space, cause strains, be expensive, and be attended with great irregularity of motion. Nothing came of Livingston's privilege, his first vessel proving a failure. But not long after, Fulton, in connection with Livingston, took up the apparently hopeless project. Travelling into Scotland, he, in company with Henry Bell, visited the unfortunate *Charlotte Dundas*; and Bell communicated to Fulton drawings of the requisite machinery, which he partly obtained from Mr Miller, and partly from Symington.

While Miller, Taylor, and Symington, then, were all out of the field, and the general public looked with contempt on the project as one only fit to be an *ignis fatuus* for dreaming speculators, this energetic American (all praise to him!) pushed on his experiments, always approaching nearer and nearer to success. At length, having erected a vessel called the *Clermont*, at New York, he was ready, in the autumn of 1807, to make a full trial of steam-navigation on the Hudson river. It sailed 110 miles against a light wind in twenty-four hours. One cannot but sympathise keenly with Fulton when he learns under what circumstances this trial was made. It had been the theme of general ridicule in the city. 'Nothing could exceed the surprise and admiration of all who witnessed the experiment. The minds of the most incredulous were changed in a few minutes. Before the boat had made the progress of a quarter of a mile, the greatest unbeliever must have been converted. The man who, while he looked on the expensive machine, thanked his stars that he had more wisdom than to waste his money on such idle schemes, changed the expression of his features as the boat moved from the wharf, and gained her speed; his complacent smile gradually stiffened into an expression of wonder. The jeers of the ignorant, who had neither sense nor feeling enough to suppress their contemptuous ridicule and rude jokes, were silenced for a moment by a vulgar astonishment, which deprived them of the power of utterance, till the triumph of genius extorted from the incredulous multitude which crowded the shores, shouts and acclamations of congratulation and applause.*'

In like manner, Henry Bell contrived to get a small steamer put into operation on the Clyde four years later. He was, practically, the father of steam-navigation in Britain; and it can never fail to be a wonder, that the man who was capable of taking this high place in the history of his country, possessed only the degree of education which the following letter exemplifies:—

MR JOHN McNEILL

HELENSBURGH 1st March 1824

SIR—I this morning was fevered with your letter and in ansur to your Inqures anent the leat Mr Robert Fulton the Amercean ingeniar his ather was from Areshair but what plass or famlay I canut tell but his self was born in Amerceen. He was different times in this contray and staped with me for some time but he published a tritiez on Canal Declining Railroads acttuards I have not his boock but you will finde it in Mr Taylor Stashner London it is 21s He published it in this contray in 1804 I think for in the letter end of the year 1803 he on his way to Frans called on me and in his return in 1804 He was brought up in the line of a painter and was the best hande acatcher and lickways a good mineter painter. He was not brought up as a ingeniar, but he was employed to come to this contray to take drayings of our cattin and other meshineray that laeid him in to become an sivel ingeniar and was quick in his uptake of any thing When I wrate to the Amercean goverment the grate yaillity that steam navigation wold be to them on their rivers they appointed Mr R Fulton to corispond with me so in that way the Amerceans gatt their first insight from your humbel servant HENERY BELL †

The whole course of the history of steam-navigation is full of curious points. Miller and Taylor, who have the real merit of the invention, and of the first experiments, deserted it; the former from caprice, the latter from want of pecuniary means. Abandoned by men of education, it was taken up by the mechanics Symington and Bell, and by them pushed on a certain way, but not effectually, when a foreigner steps in, appropriates the mechanical arrangements of the Scotch experimenters, and, with a steam-engine made at Birmingham (for such was the fact), gives the young republic of the West the glory of first truly realising the invention. Even then, four years pass without bringing any Briton into the field excepting the poor old mason Bell, who accordingly becomes entitled to the glory of setting the first steamer afloat in the old world. Then, from the moral obscurities of these humble mechanics, come forth pretensions and claims ridiculously ignoring all that Miller and Taylor had done, and detracting immensely from such merits as they themselves really had in the case. And after all, both of them were allowed to die in comparative indigence, only Bell being allowed a trifling pension by the Trustees of the Clyde Navigation. Miller died in reduced circumstances in 1815, having exhausted his fortune by 'improvements' and experiments. It has been stated by his son, that he had spent fully £30,000 in projects of a purely public nature, including steam-navigation; and yet we know that not one penny of requital was ever rendered to him or any of his family for this outlay. Taylor died in depressed circumstances in 1824, leaving a widow with some daughters, and to these poor gentlewomen the nation has generously awarded a pension of *fifty pounds* a year! The ocean is now overspread with large steamers, no voyage being apparently beyond their capabilities. Their effect in quickening and extending commerce is wonderful beyond description. The prospects of even nautical warfare have been wholly changed by this superb invention. How curious to trace back its genealogy through the muddled channels of Symington and Bell, to the amateur gentlemen mechanicians, Miller and Taylor, who conducted their experiments in something like obscurity and amidst the pity, rather than the admiration, of their compeers! Where were all the educated engineers of England during those twenty-three years between 1788 and 1811? Where were the intelligent millionaires, who had here such a glorious opportunity of making tens into hundreds, and hundreds into thousands? It appears that even James Watt never cast a favourable regard on the application of his engine to navigation. The whole thing was left for many years to persons of little account in society, and very narrow means, and seems to have made its way only by a kind of miracle—chiefly indebted, amongst us, to a man so ignorant that he could not spell his own name!

These facts provoke us to some curious considerations on the kind of persons to whom the public is usually indebted for great discoveries and inventions. Such benefits seldom come from those who stand in high and assured places in science and art. It is rather the characteristic of such persons to treat coldly, if not with actual hostility, all new ideas. Most generally, we see a new idea come forth from some obscure source. Some poor, unpatronised man breaks his head and his heart upon it, struggling in vain to get it admitted in respectable quarters. In time, out of the elevated and enlightened classes, a few men, not without intelligence, but with little reputation for wisdom—possessing candour, which their neighbours call credulity—open their ears to it, think there is something in it, and for years have the unenviable notoriety of patronising that ridiculous *ology* or *ism*. By and by, facts and demonstrations make so much way with the great mass of the public, that the leaders of science and chiefs of thought are compelled to own that it is not the

* *Colden's Life of Fulton.*

† *Jameson's Edinburgh New Philosophical Journal, April 1827.*

humbug they once believed it to be. The novelty then takes the high place it is entitled to. Meanwhile, the originator is dead in obscurity—dead of the birth of his own idea—while its early nurses continue to be smiled at as men prone to take up with things unproved. We seldom see that the very wise make any adequate apology for the scorn they once vented at both the idea and its patrons. The thoughtless public goes on in enjoyment of the addition to its knowledge and power, scarcely aware of the names of the men who have conferred upon it so great an obligation. And when the next new idea arises, it has to go through precisely the same ordeal, because the terror of making a wrong admission always exceeds the hope of verification in any particular case. Thus it is, that from the mouths of babes Providence sends so much of what blesses mankind, while the wisdom of the sage is turned to foolishness.*

A NOVEL COMPETITION SHOW.

I HAD been to look for a friend a long way off—a very long way off; but not being a man of fashion, only a foot-passenger in the journey of life, I don't mind how far I go in search of a friend—east or west, north or south—so that I find him at last. As adverse fate would have it, however, I did not find my friend, and had to return disappointed and vexed.

Of course it began to rain—it always does when you are a long way off. Rain, did I say? it began to spout, as though Jupiter Pluvius had just hit upon a new system of hydraulics, and was making experiments with it upon a grand scale. Before meeting with a cab or omnibus, or coming to any rational place of shelter, I had got dripping wet, and determined doggedly, since matters could not be worse, to go right through it all the way. I was brought up, however, by an advertisement in the window of a public-house, of a nature curious enough to attract a hunter of curiosities like me. It announced a convocation of dogs, just about to come off, under the patronage of a celebrated character; in other words, a dog-show, a kind of canonical fête, at which the best-bred specimens of the bow-wow fraternity would reap the honour of a prize.

This was too much for my resolution; I darted at once into the 'Thingumbob,' and made my way to the exhibition-room—a public-house parlour of the usual dimensions. In the centre, a couple of tables placed together were surmounted with a roomy cage of wood and wire in several compartments. A solitary poodle lay curled up in the bottom of the cage, and his owner, who looked a cross between a bailiff and a stable-keeper, and in whose mouth stuck a short pipe very considerably blacker than his rusty hat, sat contemplating him with perfect satisfaction. In a minute or two, he was joined by another exhibitor, who produced from his pocket a spaniel of King Charles's breed, no bigger than a kitten, and passed it into an upper compartment of the cage. The owner of the poodle had a bull-dog sitting gravely between his knees, and the proprietor of the spaniel had another at his heels. Tokens of recognition, consisting of a species of electric nods almost too rapid for observation, passed between the candidates, but no speech. Two newcomers anticipated any conversation that might have ensued; they were handicraftsmen, shoemakers I think, and each produced a miniature terrier from his pouch, full grown, but not much bigger than a good-sized rat. They then pulled the bell, and ordered stout from the waiter. Other exhibitors now poured in fast, and nearly every man produced his dog, most of them from the pocket. In the course of half an hour, the room

was unpleasantly full, and the cage, too, was thoroughly stocked. Every man drank beer or grog, and smoked, and all talked, save those who roared, together. The odour of the strong rank weed they chose to smoke was almost enough to choke a crocodile—the walls of the room vanished behind the reeking mist that arose on all sides, and the vision of ill-favoured faces that loomed through the gray cloud, reminded me of the grim colossal phantasmagoria which used to haunt my boarding-school couch on a hungry and sleepless night. The floor was literally covered with ugly curs, which had come as spectators—all of the fighting school, and most of them maimed or mutilated by battle. One prodigious Gorgon of a brute—with a chest as broad as a boy's, and whose feet, as he sat motionless beneath a table, met on the ground like the two lines of a capital V—had lost one eye, and the whole of his lower lip; he had a face and forehead of chamois leather, and was covered with half-healed wounds from some recent and desperate encounter.

There were as yet no signs of business. The celebrated character had not made his appearance, or he had delayed his introduction, perhaps, to give the accommodating landlord of the 'Thingumbob' the benefit of those interesting moments which precede any important event, during which the absorbents are generally in a state of activity. Pending his arrival with the umpires, some of the party got up an exhibition of a different kind, which I had not expected. Several members of the fraternity had brought little square bundles wrapped up in handkerchiefs; these proved to be small bird-cages, each containing a pet bird. One man, opening his cage, put in his forefinger, upon which he brought out a lively goldfinch, which he offered 'to whistle agin any bird in the room for a crown.' It seemed that the little songster was a celebrated prima donna in its way, and had earned the name which it bore, of the Jenny Lind. 'Don't you wish you may get it?' was the jeering inquiry from several voices. 'Give the long odds, and I'll match Piper agin him,' bawled one; but the proposition was not accepted. The little bird plumed itself proudly, and uttered a note of defiance.

'Cock-a-doodle-doo!' screamed its proprietor—'all afeared on yer, Jenny, that's what it is, my beauty—champion of all England, my little pinch o' feathers. Who bids ten guineas for the champion?'

'Not champion yet, if I know it,' said a voice from the abyss of sickening vapour; and a man stepped out of the gloom, bearing a bird perched on his knuckle, as closely resembling the redoubtable champion as it is possible to imagine. He accepted the challenge on behalf of his protégé, and producing his money, seated himself in a chair, rested his elbow on the table, and held forth his forefinger as a perch for the bird: the other did the same, while a third person lighted an inch of candle, and stuck it on an upturned pewter-pot between the competitors. The lists thus prepared, the challenger gave the signal by a peculiar sound produced by drawing the air between his lips; and Jenny, after a few low and preparatory flourishes, burst into song. The rival bird responded in a strain equally loud, and both sang in evident emulation of each other, and by degrees stilled all other sounds in the room, save the snorting puffs that rose from some half-hundred pipes. The little creatures grew wondrously excited; their throats swelled, their tiny feathers ruffled up, their eyeballs rolled, their beaks yawned and quivered, while without an instant's pause or let, amidst that horrid reek of filthy tobacco, through which their forms were but just visible, still rushed the stream of song. One would have thought such an atmosphere would have poisoned them, but both were plainly proof against it; and when at length the rival bird ceased and fluttered down upon the table, it was from sheer exhaustion of physical strength, and

* It is right to mention, that the historical details of this article are all based on authentic documents. Some efforts have been made by the representatives of Symington to establish that he had projected steam-navigation before his patrons, Miller and Taylor; but the evidence is clearly to the contrary effect.

lack of further power of endurance. Jenny, as usual, had won the day; and its owner, as he complimented the bird caressingly, averred, with a tremendous expletive, that he would have wrung its neck upon the spot had it been defeated.

Another similar match followed between birds of less note and less exalted pretensions; but, owing to a defect, or perhaps to an excellence, in my pectoral apparatus, I was so unpleasantly affected by the amount of tobacco-reek which had found its way into my lungs, as to be compelled to make a hasty exit. Consequently, I had not the privilege of seeing the celebrated character, or of witnessing the bestowal of honours upon the dogs of merit. Whether Pompey bore off the prize, which of the terriers got a medal, and which came off with only honourable mention, I am in no condition to satisfy the public. There was no illustrated catalogue of the exhibition, although it would have stood illustration remarkably well from the hands of some combined Hogarth and Landseer. Bets were rife upon the chances of the prize, and the 'favourite' was a black and tan spaniel about the size of a rabbit, with long broad ears, long silken hair, and no nose to speak of. This was a dog of fortune—had been pupped, to speak figuratively, with a golden spoon in its mouth, having been bred to order for a certain beautiful duchess, to whom, after having competed for, and probably won the first prize, it would be forwarded on the morrow, to be pillowed henceforth on silk plush, or fondled in the folds of lace or satin; to be dieted on fricassees and cream; to be attended, in case of an attack of the spleen, by a physician who keeps his carriage; and to be led forth in park or shrubbery every day for an airing, by a liveried page, impressed to melancholy by the awful responsibility of the charge.

Companions of man, dogs are subject, like him, to every imaginable variety of social position, and to all possible mutations of fortune. The difference between the Queen upon the throne and the veriest houseless outcast that cowers shivering beneath the blast of winter in the streets of London, is not greater than that which exists between the kicked, starved, mangled, worried, and skeleton mongrel that wears and whines out its miserable life in the oozy kennels of the city slums, and the Queen's favourite poodle, caressed by royalty, immortalised by Landseer, and housed in a palace. The parallel is capable of a much more extensive application; but I must not pursue it too far, lest I be betrayed into comparisons which might not be deemed complimentary to the reader, for whom, and for whose dog, I entertain the tenderest regard.

THE ART OF BEING QUIET.

AN old writer—I think it is Jeremy Taylor—says: 'No person that is clamorous can be wise.' This is one of those sayings which everybody believes without reasoning about, because it accords with things already tried and proved by the great bulk of mankind. We are all disposed to assume that a man of few words thinks much; that one who is never in a bustle gets through twice as much work as another who is always hurried. And the disposition to believe this is not weakened by finding many exceptions to the rule. A silent fool who passes for a wise man until he begins to speak is not a perfect fool; on account of his quietness, that outward semblance of wisdom, he is less foolish than his talkative brother. And a wise man who has spoken largely—and there have been many such, from Confucius and Socrates down to Bacon and Goethe—is not reckoned any the less wise for having made some noise in the world. The silence of the fool and the eloquence of the wise cannot be adduced in argument against the utility of being quiet, nor can

The loud laugh which marks the vacant mind.

The art of being quiet can still lay just claim to the attentive consideration of sensible folks and people of an artistic or speculative turn of mind, and should have its claim allowed on fitting occasions. With your leave, good reader, I will take the present occasion to be one of those, and will offer you a few words on the subject.

It has struck me, that the art of being quiet, besides being one of the most useful arts, must be reckoned among the fine arts, since it ministers largely to our love of the beautiful. The very words *quiet*, *repose*, *calmness*, *tranquillity*, *peace*, are in themselves beautiful, and suggest either the essence or a very important component of all true beauty. Therefore, it will be well to consider the art of being quiet from an æsthetic as well as from a utilitarian point of view.

To begin with the utility of being quiet. All the world seems agreed that it is essential to their *bien être physique*; for all the world is ready to do, say, or give 'anything for a quiet life.' One of the first lessons taught to our children is the necessity of acquiring this art. 'Be quiet, child!' is an exhortation of as frequent recurrence in the British nursery and school-room as the famous 'Know thyself!' was in the ancient groves of Academe. But physiologists can testify that the lesson is by no means a profitable one to the child, and that it is inculcated mainly for the benefit of the grown-up world around, who dislike the noise which is a necessity of development to the young. So necessary is noise to the healthy development of children, that whenever we meet with a child who is remarkable for its quietness, we are apt to infer that it is in a morbid or diseased state; and the physician will generally pronounce the inference correct. In fact, the quiet life so much desired by adults is not natural or desirable during the years when existence goes on unconsciously. It is only when we begin to *think* about life, and how we should live, that the art of being quiet assumes its real value; to the irrational creature it is nothing, to the rational it is much. In the first place, it removes what Mr de Quincey, with his usual grand felicity of expression, calls 'the burden of that distraction which lurks in the infinite littleness of details.' It is this infinite littleness of details which takes the glory and the dignity from our common life, and which we who value that life for its own sake and for the sake of its great Giver must strive to make finite. Since unconscious life is not possible to the intellectual adult, as it is to the child—since he cannot go on living without a thought about the nature of his own being, its end and aim—it is good for him to cultivate a habit of repose, that he may think and feel like a man, putting away those childish things—the carelessness, the thoughtless joy, 'the tear forgot as soon as shed,' which, however beautiful, because appropriate, in childhood, are not beautiful, because not appropriate, in mature age. The art of being quiet is necessary to enable a man to possess his own soul in peace and integrity—to examine himself, to understand what gifts God has endowed him with, and to consider how he may best employ them in the business of the world. This is its universal utility. It is unwholesome activity which requires not repose and thoughtful quiet as its forerunner, and every man should secure some portion of each day for voluntary retirement and repose within himself.

But besides this conscious, and, as it were, active use of quiet, which is universal in its beneficial effects, there is a passive—though, to the adult, not unconscious—use of quiet, which belongs only to particular cases, and which is even of higher beneficial effect. I say, to the adult it is not unconscious, because this same passive use of quiet operates upon children of finer and nobler organisation than the average, and in their case it operates unconsciously. In both cases—in that of the unconscious child and that of the conscious man—

the still, calm soul is laid bare before the face of nature, and is affected by 'the spirit breathing from that face.' It does not study, nor scrutinise, nor seek to penetrate the mystery; it does not even feel that there is any burden in that mystery; it is simply quiet beneath the overruling influences, and purely recipient. De Quincey has this sort of mental quiet in his mind—the passive as opposed to the active quiet—when he cites Wordsworth's well-known verses in the following passage:—'It belongs to a profound experience of the relations subsisting between ourselves and nature, that not always are we called upon to seek; sometimes, and in childhood above all, we are sought.

Think you, 'mid all this mighty sum
Of things for ever speaking,
That nothing of *itself* will come,
But we must still be seeking.'

And again—

Nor less I deem that there are powers
Which of *themselves* our minds impress;
And we can feed this mind of ours
In a wise passiveness.

The wisdom of such passiveness can never be doubted by those who have felt the impress of the invisible powers upon their own minds when in that state, or have had opportunities of observing similar effects on the minds of children. It is when a mind is thus wisely passive that it is open to revelations and to inspirations. This is the mental state of the poet and of the prophet in the exercise of their proper functions. This sort of quiet can be described much better than it can be taught; for although it certainly comes within the limits of the art of being quiet, it has 'a grace beyond the reach of art.' To give rules for its attainment, would savour of presumption in one who cannot pretend to be an adept; but, without presumption, I may indicate in what manner these rules may be discovered by those who wish to know them. In two ways may the art of being quiet—in this high passive sense—be attained: first, by natural instinct or genius; second, by habituating the mind to the practice of that lower, and, as it were, active art of being quiet, which it is incumbent on us all to acquire as a condition of moral health in this busy world, wherein the verb *to do* ranks so much higher than the verb *to be*. The way of instinct or genius cannot be taught. The other way can. We can all learn how to be quiet in that sense.

To begin with externals. We must, in this respect, keep the body in subjection, avoiding all unnecessary motion. It is one step gained when we can *sit still* and think within ourselves, or listen to another. Another step is gained when we have learned to bridle the tongue—when we are silent, not only that we may hear the voice of another, but that we may hear the voices of our own heart and conscience. Then, indeed, silence is better than speech. We must be careful never to give utterance to half-thoughts or hasty opinions, but to wait in patient silence till we have matured them in our brains. A calm earnest manner when we are most actively employed: *Ohne hast aber ohne Rast*, as the German proverb says, is also another external characteristic of mental quietude. But the mental quietude itself, the art of being quiet, is a something which works beneath the surface. This art gives to ordinary men a power and influence which men, in other respects far above the ordinary, cannot attain without it. The amount of self-governance which it establishes is admirable. Thought, word, and deed are under control of the reasoning will; irregular and irrational impulses never carry away the man in spite of his reason; he is always master of himself—that is, being self-possessed. Thence proceed 'self-reverence, self-knowledge, self-control.' The kingdom of the mind is kept in order and peace, so that external disturbances—what is called the tyranny of

circumstances—may move, but cannot upset it; it is quiet within, and commands respect from others. This is attainable by minds of mediocre endowments: a man need not have a great genius to be serene and mentally quiet—quiet enough to examine his own powers, and keep them always ready for active service. This is doing one of the highest earthly duties, and in the performance of it a certain sort of greatness is attained—that useful sort of greatness implied by the wise man when he says: 'Greater is he that ruleth his own spirit, than he that taketh a city.'

Before I say a few words about the beauty of being quiet, or, as it was called above, the æsthetic view of the subject, I cannot refrain from setting before my readers a passage from a new book by an old favourite of the book-loving public; for Leigh Hunt is an old and ever-new favourite with all persons of refined and cultivated literary taste; the sorrows of life have chastened, matured, strengthened and beautified his character, so that his genius sends forth as bright a light in old age as ever it sent in youth. Hear what he now says: 'It is good to prepare the thoughts in gentleness and silence for the consideration of duty. Silence as well as gentleness would seem beloved of God. For to the human sense, and like the mighty manifestation of a serene lesson, the skies and the great spaces between the stars are silent. Silent, too, for the most part, is earth; save where gentle sounds vary the quiet of the country, and the fluctuating solitudes of the waters. Folly and passion are rebuked before it: peace loves it, and hearts are drawn together by it, conscious of one service and of one duty of sympathy. Violence is partial and transitory; gentleness alone is universal and ever sure. It was said of old, under a partial law, and with a limited intention, but with a spirit beyond the intention, which emanated from the God-given wisdom in the heart, that there came a wind that rent the mountains, and brake the rocks in pieces, before the Lord; but the Lord was not in the wind; and after the wind was an earthquake, but the Lord was not in the earthquake; and after the earthquake a fire, but the Lord was not in the fire; and after the fire, a still, small voice. Such is the God-given voice of conscience in the heart; most potent when most gentle, breaking before it the difficulties of worldly trouble, and inspiring us with a calm determination.'

If such be the moral effects of silence and quiet, we may be sure that the æsthetic effects will correspond, for goodness and beauty are radically the same. In all the great works of art which remain to us from ancient times, and which are ensembles to modern artists, a perfect calmness and repose is noticeable. In all beautiful objects of our own time, whether among living creatures or in the productions of man's hand, there is a sentiment of quietness and serenity. Nothing disturbed, confused, or hurried, affects us with a sense of beauty; whereas anything that produces a sense of stillness and repose, even though it may lack every other element of beauty, is often said to be beautiful, and does the work of a beautiful thing, which is to excite love or admiration in our minds. It is so especially with persons and with places. A person whose face and manner are full of that composure and gentle quietude which can emanate only from a peaceful and well-regulated mind, may not have a good feature nor a well-proportioned limb, and yet will attract others as if he or she were beautiful. They will be gladdened by the approach of such a one, love to be near him, to be under the influence of that beautiful or 'beauty-making power;' and feel all their gentlest and best feelings excited by his presence. More than all, they themselves will be quieted by being near him, for repose of character, and the loveliness attendant on it, are contagious. So it is with a quiet place—a place

* *The Religion of the Heart.* By Leigh Hunt. John Chapman: Strand.

where order and fitness of details produce a unity of effect. This unity of aspect in a landscape or a room, is what is called harmony in the language of art; it is what in common language may be called repose or quiet, and is the thing which we all seek—without knowing it, for the most part—when we gaze upon a natural landscape, or look round us in a room. A quiet comfortable room is full of beauty, and everybody loves it; a quiet beautiful landscape is full of the comfort which all beauty brings to the refined mind. There are also refined minds which, having attained in perfection the art of quiet, reflect their own harmony upon the landscape they look on, or the room in which they are; they carry about with them repose and quiet, as the joyous minds carry with them sunshine and gladness. In this world, so full of love and sorrow, the loving cannot always be glad, nor desire to be glad; but always they are glad to be quiet. Quietude is beautiful and good: let us strive to cultivate it in our hearts, that it may give us leisure and opportunity for raising and purifying our souls, which is the highest duty we have set before us on earth. Far be from our souls all noise and tumult, violence and confusion, even about good things; and let us learn to compose our hearts, that we may commune with high things, and heed as little as may be 'the madding crowd's ignoble strife,' except to convert it into the 'peace which passeth all understanding.'

ALARM OF A FRENCH INVASION.

THERE are certain well-known plagues of domestic life in the shape of beetles and cockroaches that take up their quarters wherever human beings congregate; and not even students of natural history are willing to fraternise with them for any length of time. London has its full share of these intruders, and others besides, among which is the *Myrmica domestica*—small yellow ant, now found in so many houses as to occasion serious annoyance. At a recent meeting of the Entomological Society, Mr Spence stated, that had proper precautions been taken when this ant was first introduced, its spread might have been prevented, and the infant colony extirpated. At the same time, he called attention to a danger threatened from another quarter—namely, an invasion from Rochelle, not of Frenchmen, but of an army of the *Termes lucifugus*. These insects have long been established in that town, and we are liable any day to have them brought over in trading vessels to our own ports in the west of England, 'where,' as Mr Spence observes, 'they would find a temperature probably as well suited to their propagation as at Rochelle.' If such should be the case, there is no foreseeing where the evil would stop: the whole country might be overrun, as with the aquatic plant whose extraordinary spread we noticed a few months ago.

We have all read of the ravages which ants and termites commit in tropical countries, of their extensive settlements, and surprising migrations. Our unfortunate colony of Port Essington was one of their favourite haunts; and so cleverly did they pursue the work of destruction inside the timber of the colonists' houses, that the buildings fell one after another without a moment's warning. We now find them making similar havoc in Europe.

Termites are often confounded with ants, which is a mistake, for they are distinct races. The *Termes lucifugus*, which is very small and white, was discovered first at Bordeaux by Latreille, and since his day, has been found at some half-dozen other places in the western departments of France, and more recently at Rochelle. Naturalists say that termites are more to be feared than the real ant; and so it proved at Saintes, Rochefort, &c., where roofs and floors fell without the least notice, and whole houses were hollowed out to

mere shells, and had to be abandoned or rebuilt. As their name indicates, these petty marauders shun the light, and never give any outward sign of the mischief they are perpetrating—a fact which renders them the more to be dreaded.

At Rochelle, they have not yet overrun the whole town, but have two thriving settlements from which they may, when least expected, send out scouts to find new quarters for their swarms of sappers and miners. These settlements are at opposite extremities of the town, separated by the port and docks—one being the arsenal, the other the prefecture. At the former, the ground-floors only are infested, the upper apartments having hitherto been preserved by a constant and rigid system of inspection. But at the prefecture, and some of the adjoining houses, the whole of the wood-work in every story is pierced. Had it not been for a canal which connects the town-ditch with the harbour, they would probably have spread themselves further in this neighbourhood; but, to the inhabitants, the possibility of their getting across is a continual cause of apprehension.

The prefecture is a mansion which two wealthy ship-owners built for their own residence about seventy years ago. They imported largely from San Domingo, and it is believed that the termites were introduced with bales of goods from that colony, and that a few having found suitable quarters in the building, their propagation inevitably followed. The arsenal appears to have become infested through false economy, for when it was built, some beams were used in which it was well known that termites had already penetrated.

Many attempts have been made to get rid of these destructive Neuroptera, but hitherto without success; though one case is recorded of a garden having been freed by soaking it with hot soap-suds. At the beginning of 1853, M. Quatrefages of the French Academy of Sciences was sent to Rochelle, to investigate the growing evil on the spot, and devise if possible a remedy. He describes the ravages at the prefecture as being of the most serious nature. A few years ago, the principal beam of one of the rooms broke in two, and fell during the night, leaving the inmates in a state of painful suspense as to which part of the edifice would go next. By and by, a great portion of the departmental archives was found to be destroyed; the bundles of papers appeared to be perfectly sound on the outside, but the whole of the inside was devoured. Since that time, the official documents have been kept in zinc boxes. Painted columns which shewed no signs of injury, have, on examination, proved to be nothing but a fragile honeycomb surrounded by a shell of paint. One day, a clerk happening to stumble in going up stairs, clapped his hand suddenly against a massive and seemingly solid oak joist to save himself, when to his surprise the hand went in up to the wrist. The interior was nothing but a collection of empty cells abandoned by the termites.

In the garden, permanent hardy plants were attacked as well as annuals: a poplar was eaten away up to the branches, and a dahlia was pulled up with its stem completely filled with the mischievous insects, and the tubers excavated. All the stakes used for supporting plants were perforated both above and below the surface of the soil; and if a piece of board was attached to the wood-work of any of the doors or lintels, it was furrowed in all directions in less than twenty-four hours.

The habit of the termites is to establish a nest or colony at some central point, and to bore galleries leading from it in all directions. To find out this central point is one difficulty in the way of extirpation; the smallness of the creatures themselves is another. M. Quatrefages remembering that rats had been driven from their holes by forcing in sulphuretted hydrogen, tried a number of experiments with this gas and with chlorine on the termites enclosed in glass tubes, where the effects could be noted. He found chlorine to be the more fatal: it killed the insects in

five-sixths of a second. Besides, it is less costly, more easily prepared, and less irritating to the lungs of those who have to apply it, than sulphuretted hydrogen. Its greater specific gravity, too, insures its penetrating the galleries, and it will kill even when largely mixed with atmospheric air. The method he recommends is, to fit an apparatus as near to all the central nests as possible, and then, by a moderate long-continued pressure, to force the gas into the galleries. If this be done at the season when the females are about to lay their eggs, the destruction will be the more complete.

It is obvious that this mode of destroying so dangerous a pest can only be really effectual while the termites are confined to narrow and well-ascertained limits. When spread abroad, it would be impossible. Watchfulness ought to be exercised in our seaports against the entrance of so obnoxious an intruder.

THE LARGE HOTEL QUESTION.

THAT most indefatigable of all the servants of the British public; that functionary who never sleeps, never stops to eat or drink, never tires, never dies; that phenomenon who knows everybody and everything, who has been everywhere, and seems to be everywhere at once; who has attributed to him the wisdom of knowing how to do the right thing at the right time in the right place; who keeps the earth's axis well oiled, that the world may roll on without too much friction; who knows what everybody thinks, and, moreover, what everybody ought to think; who can tell the thinkers how to do what they think, and fights everybody's battles against those who would obstruct the thinkers and doers; who is expected to answer everybody's questions, and to solve everybody's difficulties—of course we speak of the editor of the *Times*—this invisible personage, among the many hard tasks which have been imposed upon him, has been called upon to reform our hotels and hotel-systems. 'Biffin' and 'Thirsty-soul' appealed to him day after day, to assist them in an onslaught on the hotels. He did so, and there is silently springing up proofs here and there that the battle will not have been fought in vain. It is true that no very startling manifestations have become visible—nothing to fright the isle from its propriety: but the work is going on nevertheless. There are three directions in which the reform is shewing itself—the great railway companies are beginning to advertise for tenders in respect to the building of hotels, in which 'second-class' accommodation is to be afforded; there is a 'Hotel Company' brewing, by which great things are promised; and many of the old hotels and inns, terrified at all this stir and 'botheration,' are voluntarily making sundry reforms, in which a public drawing-room or coffee-room for ladies is included.

The causes which have led to the present unsatisfactory state of our hotels are many. The hotel-keepers are answerable for only some of them, not all. In the days of posting, there was a clearly marked line of division between the rich and the poor, the genteel and the common. The persons who hired a post-chaise lived in corresponding style on the road, and the posting-inns provided a luxurious and costly accommodation; while all those whose means did not permit them to travel post, but who had to avail themselves of other modes of conveyances, put up as a matter of course at houses of much humbler character. When the days of staging began to supersede the days of posting, the two different grades became more mixed up; the 'insides' and the 'outsides' stopped at the same inn, because the coach changed horses there, and the opportunity of making a difference in charge became much lessened; when railway-days began to supersede staging-days, the confusion of rank became greater and greater; and the British public have never yet settled down into gradations in respect to railway-hotel accommodations.

Besides these three causes—the posting, the staging, and the railway systems—there are other three which have tended to bring about the present anomalous state of our hotels. One is the *licensing-system*, which, by limiting the number of houses opened for such accommodation, cramps the healthy action of open competition. A second is, the practice which railway companies have followed of building costly hotels, letting them at high rental, and allowing the renters to charge what they please. A third is—and the sooner we acknowledge it the better—that we are an odd sort of people at hotels; our insular habits not adapting us so completely as our continental and American friends to the social usages of hotel-life.

Without dwelling further on these causes, we wish to devote a few paragraphs to a notice of what is doing in various quarters, to mark the steps of progress towards something which may be better by and by. It may be as well here to mention, that if the reader has the second series of the *Journal* at hand, he will find two detailed notices of the continental hotel-system in the years 1846 and 1847 (vol. vi. p. 190; vol. viii. p. 153). It is the marvellous hotel-system of America that we wish here more particularly to mention.

In the *Illustrated News*, a few months ago, was given an engraving of an American hotel, so stupendous that an Englishman has some difficulty in believing that such a structure can be a hotel. It is the Mount Vernon Hotel, at Cape May, in New Jersey. This Cape May is not a large city, nor the suburb of a large city: it is a quiet watering-place, and the hotel has been recently built for the accommodation of pleasure visitors. Herein we observe at once a contrast to English customs: our towns-people, when they take an autumnal trip to Gravesend, Margate, Brighton, Weymouth, and such-like places, more frequently look out for lodgings in private houses, than venture upon the expensiveness of hotel-accommodation; but the Americans view the matter differently—they put up at a hotel, and transfer all care and responsibility to the hotel-keeper. This Mount Vernon Hotel exceeds in size anything we can even dream of as a hotel in England. It consists of a main front or façade four stories in height, by more than 300 feet in length, and two wings no less than 500 feet in length. The front and wings form three sides of a square laid out with shrubs, walks, terraces, and fountains. The fourth side of the quadrangle is open to the sea, between which and the hotel is a smooth beach. In the centre, and at the corners of the front and of each wing, are towers higher than the rest of the building. Balconies and verandas are continued round the whole extent of the building at each story. It is said—and the figures in other respects seem to bear out the assertion—that there is nearly a mile and a half of such balconies and verandas. The general style of architecture is something like that of the new front to Buckingham Palace, with a certain Oriental character, due to the balconies and verandas. The dining-saloons, ladies' drawing-rooms, and general drawing-rooms, are of most sumptuous character. The number of bedrooms mentioned, is so extravagant that we think there must be some mistake; and in order that we may not perpetuate the mistake, if mistake it be, we will consent to regard the number of rooms as 'an unknown quantity.'

The system observed is very different from that which is usually acted on in England. Instead of being left in a state of vague terror at the possible amount of his bill, each visitor is said to be charged two dollars and a half—about half a guinea—per day for bed and board. Wine and washing are 'extras,' the washing being so charged as to include payment for servants. Notwithstanding all that has been said about American hotels, however, it appears that at this crack establishment, as in England, a guest finds himself almost compelled to fee the servants directly,

if he would be well served. In the management of the *salon à manger*, everything that can reasonably be expected even by a refined epicure is provided. Nothing is carved at table. Colonels are plentiful in the United States: Colonel Colt makes the famous revolvers; and Colonel West keeps the Mount Vernon Hotel. Among the luxuries of the place, is that every bedroom has a bath attached, with hot and cold water always laid on. The hotel manufactures its own gas; and so extensive is the supply of water and gas, that the pipes for distributing those necessities throughout the building are said to amount to 125 miles in extent. Not only is each bedroom provided with a bath, but it has other accommodations which render it a home distinct from every other part of the house. There is a 'bridal-chamber,' on which the most exquisite art of the decorator and upholsterer has been displayed; it is always engaged for weeks beforehand, for newly-married couples who have the wherewithal to pay about L.10 a day for its use. This public spending of the honeymoon at hotels is much more prevalent in America than in England: whether English brides avoid this publicity because they do not like it, or simply because our hotels are not fitted for it, let others determine. We promised to avoid any mention of the alleged number of rooms; but as the alleged receipts are consistent therewith, we may as well, without any guarantee for correctness, state that the bedrooms are declared to be 3500 in number; and that the rooms being nearly always occupied, at two dollars and a half per day, the receipts amount to not much less than L.1750 per diem. If this be true, we may well endorse the assertion, that there is 'no other hotel in the world the receipts of which approach to this immense sum.'

Our perplexity about the astounding number of rooms has been partly induced by the contrast between it and the number in the largest of the New York hotels. The reader has, of course, heard about Astor House and Irving House; but it appears that both of these are beaten by another hotel of later date. In September 1852, was opened the Metropolitan Hotel, which had been three years in course of construction. It is described as excelling all the other New York hotels in magnificence as well as in magnitude. It has sleeping accommodation for 600 visitors, and is always full. There are 300 servants, for it has been found in these monster hotels, that the efficient service of the whole establishment requires half as many attendants as there are guests sleeping in the house. The servants' wages vary from two shillings a day to about a guinea a day. The laundry attached to the hotel washes 4000 articles daily; and so efficient is the machinery, that shirts and other linens are said to have occasionally been washed, dried, ironed, and delivered in the short space of fifteen minutes. In the public saloons there is a constant round of eating and drinking for twenty hours out of the twenty-four, to accommodate passengers by rail or steamer. How many men it takes to eat one ox, we have never happened to hear, and, therefore, we cannot tell whether it is true, as is stated, that 1000 oxen were cut up into beef for this hotel during its first year. There are six stages, and twenty other carriages, constantly employed in conveying visitors to and from the hotel. In the first year, from September 1852 to September 1853, the gross receipts were set down at 500,000 dollars—about L.110,000—of which twenty per cent. was profit. The gas and coal for the year cost 14,000 dollars, and the water 1000. These astonishing details are rendered more credible than they would otherwise be, by the well-known tendency of the Americans to conduct operations on the factory or large system more extensively even than is practised in England.

What is the mystery by which waiter, boots, chambermaid, and hostler, know when they are respectively wanted, and by which the requirements of the

gentleman in No. 6 are distinguished from those of the lady in No. 13, is very little known to the visitors generally; but there is a plan acted on in some of the American hotels, and also in some of the magnificent transatlantic steamers, which would seem to lessen the amount of ringing and calling, and confusion and delay. This is by the use of the bell-telegraph. There is an upright case or box, two or three feet square, through the top of which descend bell-wires from all the rooms placed in connection with the apparatus. Within the case is a bell, the hammer of which is moved by pulling any of the wires. Not only is the bell thus struck, but at the same moment a small, white, semi-circular plate in front of the apparatus is turned half-round, and reveals either a number or a message inscribed beneath. There may be a hundred or any other number of these plates, some of which reveal the numbers of the respective rooms occupied by the guests, while others disclose such words as 'waiter,' 'boots,' 'hot water,' &c., indicative of the numerous wants of the guests. A small handle at the bottom of the case readjusts any of the plates after it has been moved by the bell or bell-hammer. The modicum of philosophy in this apparatus is, that instead of having as many bells as there are rooms, there is one bell to serve for all, with a decided test to ascertain whence or for what it has been rung. This is an improvement upon a plan adopted in some of the continental hotels, in which there is one bell to each floor. If there be rooms on a floor occupied by twenty guests, the guests may pull twenty bell-ropes, but they will ring only one bell. Each bell-rope pulls two wires—one going down stairs to the bell, and the other going no further than the adjoining passage. In this passage is an apparatus against the wall, inscribed with the numbers of all the rooms on that floor, and a lid to cover each number, movable on a hinge. If No. 1 rings his bell, the lid falls which had hidden the inscription 'No. 1;' the servant attendant on the ringing comes up to the passage, sees which number is exposed, and hence knows by which guest his services are required. He fastens up the lid again by a spring catch, and the apparatus is ready to be again applied to use as before.*

In our brief notice of the two gigantic American hotels, mention is made of the laundry as a very marked feature in such establishments. We have happened to meet with a detailed account of the working of one of these hotel-laundries: perhaps the reader will deem this not the least interesting among the illustrations of American hotel philosophy. At the St Nicholas Hotel, then, at New York, is a magnificent laundry, in which the washing and drying are regularly performed within the space of about half an hour. One man and three women can wash from 3000 to 5000 pieces daily—the usual average. The main portion of the apparatus is a strong wooden cylinder, four feet in diameter, rotated by a steam-engine. The shaft of the cylinder is a hollow pipe, through which hot water, cold water, or steam can be introduced. The cylinder being half filled with water, a door is opened, 400 or 500 articles of clothing are thrown in, soap and an alkaline liquid are added, the door is closed, and the steam-engine whirls the cylinder with its contents rapidly round and round. The alkaline liquid is selected so as to bleach the fabric as well as to remove the dirt. Steam is admitted during the revolution, and is so managed that it must pass through the clothing in its way to the place of exit. Fifteen or twenty minutes suffice to wash the clothes. The steam is cut off, the heated water is drawn out, and cold water is introduced to rinse the clothes. The articles are taken out, wet and clinging

* In a future chapter of *Things as They are in America*, our readers will find a detailed account of the hotel-system of America.

together, and are put into a centrifugal drying-machine. Such machines are now very extensively employed in numerous manufacturing processes: they consist of a sort of perforated cylinder, in which the moist or wetted articles are placed; the rotation of the cylinder at a high velocity drives out all the moisture, which escapes through the perforations in the form of drops of water. Some such machines are made to rotate with the immense velocity of 3000 turns in a minute. The laundry-attendants, then, devote about five minutes to the drying of the washed linen in the centrifugal machine. With a praiseworthy caution, which ladies will doubtlessly appreciate, all such articles as ladies' caps and laces are put up in netting-bags, in order that they may undergo the washing process without injury from rubbing or friction. The linen is, of course, not absolutely dried by this rapid whirlabout motion; all the moisture that can be driven off is made to leave it; but the articles are then hung for a short time on airing-frames, and placed in a hot closet, where the final drying is effected. The ironers have all possible aid to facilitate and expedite their labours; but we have not yet heard that a shirt can actually be ironed by machinery: this is a feat which perhaps Young America is destined to accomplish one day or other.

Now a question which suggests itself is—how far can these transatlantic marvels supply us with hints whereby to improve the management of English hotels? One thing must especially be borne in mind—that the peculiarities of English habits will not sanction a rapid or extensive change of system; it must be brought about gradually, if it is to effect any good. Should a person just at the present time, and before the reform question has taken root, establish an hotel with 600 beds—we are afraid of the 3500, and will say nothing more thereupon—what would be the result? Would he not get—into the *Gazette*? An enormous hotel at Cheltenham—but a pigmy beside the American giants—has gone through a course of ill-luck, which acts as a warning to oversanguine speculators. Nevertheless, in this as in other matters, the failure of exaggerated plans tells but little against the same plans carried on more moderately. What we require in England is, not hotels so large as to accommodate hundreds of sleepers, but hotels in which the charges are reasonable, in which fees to servants are included in the charge, in which quarts of wine should be quarts rather than pints, in which no one should be left in any doubt as to the rate of charge, and in which ladies—why not say women?—should be attended to as their sex demands without exorbitant charge.

One of the new journals to which the Sydenham Palace has given origin—the *Illustrated Crystal Palace Gazette*—has thrown out what are called 'Hints to Architects in designing Hotels for Sydenham and Norwood.' The gist of the suggestion is, that the Paxton style of architecture—to use an expression which has lately acquired a certain sort of popularity—is well worthy of being carried out in private houses, and especially in family hotels. It is a style or principle marked by this character: that the internal capacity bears a remarkably large ratio to the substance or materials of the building itself. In no other style whatever is there so little waste of space. The monitor asks, in respect to family hotels: 'Who has not felt the annoyance of want of privacy in these domiciles?' And he then complains that, 'to prevent intrusion or annoyance, parties must be shut up in their own apartments; for instantly they leave them, the one common staircase and doorway painfully remind them that they are not "at home."' The new style of construction would leave abundance of room for many doorways and many staircases, without encroaching on the space for apartments. A description is given of a group of hotels planned for construction on Westow Hill, in the immediate vicinity of the Sydenham Palace. According to

the architect's plan, there are to be three hotels facing the high road—a large one in the centre, and two of smaller dimensions flanking it on either side. There are to be corridors running from each of the floors, connecting the three hotels. All the cookery and general domestic operations are to be carried on in the central hotel, leaving the two side hotels private: as private and quiet, indeed, as any home-dwelling, each floor having a separate entrance by means of a handsome covered flight of steps from the grounds without. A private road will run back at right angles to the frontage of the hotels, on an incline; this road will lead to the mews or stable of the establishment, which will be so constructed that stabling for 150 horses will be at a low level, and carriage-houses at a higher level. Such is said to be the plan for these hotels. It does not always fall to an architect's lot to see his plans carried out; but the future must speak for this, as for many other notable schemes.

Whether the new project for a hotel company, presently to be noticed, is likely to be more feasible than the plans brought forward by private persons, it is not at present easy to see. We establish companies for almost everything, it is true. We have lately seen a company formed for cutting a thing so small as a cork, and another company for cutting a thing so large as a ship-canal from the Atlantic to the Pacific across the Isthmus of Darien; there is, therefore, no doubt about the hotel so far as money-power is concerned. The doubt arises in respect to management. A committee to manage a hotel would not manage it so well as one individual proprietor. The analogy of the clubs does not bear upon this; for a club is a definite establishment, comprising not merely the same number of persons, but the same identical persons, throughout perhaps a whole year. This matter has yet, however, to be put to the test of actual experience, before it can be either affirmed or condemned.

The promoters of the Hotel Company do not seem to be very definite in their plans, so far as the prospectus affords the means of judging. The capital of the 'London and County Joint-stock Hotel Company' is set down at £100,000, 'with power to increase;' in shares of £1 each, 'to be paid up in full on allotment.' The prospectus assumes that everybody's attention must have been drawn to the defective state of the existing hotel-system, and that everybody must be anxious to see a reform of the system introduced. It then announces the intention, with the funds of the company, and under the control of the directors, to build, purchase, or rent, as in each case may be considered most expedient, one or more hotels of large dimensions, in London, and in the principal towns throughout the United Kingdom, to be fitted up on a scale commensurate with modern taste and requirements; and, as far as practicable, to maintain among all the company's establishments a complete system of intercommunication by means of the electric telegraph. These hotels, it is proposed, shall be conducted by paid managers of known talent and integrity, and the charges regulated by a uniform tariff, to be printed and posted in the several rooms. It is further intended, that the continental and American systems of tables d'hôte and public rooms shall be combined with the privacy and comforts of an English hotel, so as to meet, as far as possible, the requirements of every traveller. One special defect of English hotels—the difficulties which ladies experience in obtaining anything like proper accommodation without incurring the expense of a private sitting-room—it is proposed to obviate by establishing a public 'Ladies' Room,' for their sole use, with suitable female attendants. For such parties as may require private apartments, the charge will be much lower than is now customarily demanded; and 'lights' will not be charged. It is proposed that hotel libraries shall be established,

for the use of the visitors; and that all modern improvements tending to enhance the comforts of guests, shall from time to time be adopted, without occasioning any rise in the tariff of charges. The objections to the fee-system is proposed to be met by the standing rule—that all attendants detected in receiving gratuities at the hands of visitors will be immediately discharged. The directors express a belief that the mode adopted of raising the capital in small shares will create a diffusiveness of interest that must of itself, by the extension of custom to the company's hotels, enhance the prospect of ultimate success, and secure a more ample return to the shareholders. They finally give expression to a full assurance, 'that the development of these arrangements will effectually dispel the existing feeling of dissatisfaction and mistrust experienced by all who frequent hotels; and that such establishments as may be conducted under the auspices of this company, will offer much greater inducements for habitual resort.'

Hotels pay much larger profits than railways, in England as in America; and we cannot wonder if the joint-stock principle should ultimately be applied to the one mode of investment as to the other. Be this as it may, we may hope that no one will again have to accuse a waiter of charging 2s. for three oranges, which the said waiter had just been seen to purchase at the hotel door for 4d.; and of charging 6d. for the sugar which the guest did not eat with the said oranges. To say that a rich man can afford to pay this, is beside the question: it is a wretchedly uncommercial state of things, in a country like ours, that the charges in this particular branch of trade should be left in such total uncertainty.

WEARYFOOT COMMON.

CHAPTER X.

THEORY AND PRACTICE.

THE writer of the paragraph with which the last chapter closed was just in the proper position for expatiating on such a subject. His days, from an early hour in the morning, were spent in a mechanical employment, and his evenings in preparing another literary paper demanding all the powers of his intellect; and these powers were not summoned the less successfully that his studies were carried on in the front-parlour, the scene of Mrs Margery's manipulations, and that the worthy ex-cook, and an assistant maid, were unremittingly busy around him both with their hands and tongues. He had thought at first of the extravagance of having a fire in his bedroom; but the practice of an evening or two rendered it easy for him to abstract his thoughts from what was passing around him. We can easily understand this ourselves, for the hand that now moves the pen never wrote better, in its humble way, than when the other hand was holding a squalling baby, while the knee on which the impurest counterfeited the motion of a cradle, and the lips that were inwardly fashioning sentences were outwardly giving forth a prolonged and monotonous 'Hush-h-h-h!'

One evening Robert's attention was drawn from his work by a human face appearing above the muslin window-blind, the shutters not being yet closed. He could not at first make out who the individual was, the nose being flattened against the pane to the size and shape of a crown-piece; but presently the small quick eyes darting to every corner of the room assured him it was Driftwood. When the artist, satisfied with his survey, came in, he was warmly greeted both by his cousin and pupil.

'You're very well, Margery?' said he—'and well to do, old lass, I see that: work—work—it's in the family!'

'Sit you down, John, and give us all your news; and although it's not nearly so good as we had it at Wearyfoot, I'll send for some ale'—

'No, you won't. Hot water's the thing at this season.'

'Goodness gracious—hot water!'

'Well, if there must be something in it, let it be gin; but don't send for more than a pint, Margery. So, old fellow, art wouldn't do with you after you lost your master?'

'No, it would not—especially after they locked me out of the studio.'

'That was improper—decidedly improper; if that rascally boy had only been at his post!—but never mind, it's all set to rights now, and you may come back to-morrow.'

'Are you serious? Have you actually returned to Jermyn Street?'

The artist nodded affirmatively.

'I am really concerned to hear it. I happen to know—for merit will out—that in the out-of-door's line, as you call it, you are the very first of the craft; and is that not better than being merely one of a host? Besides, you cannot disguise from yourself that in the studio you were hardly able to live.'

'My dear boy, it is the fate of all the modern masters at first: the dealers and amateurs must get used to us by degrees. Great painters have their own way of doing things, and it stands to reason that this will be resented for a time by the taste it seems to defy. I have myself a peculiar style—a very peculiar style, I humbly conceive—and that is the reason why I am so long of moving; but when I do move, up I shall go like a rocket, and no mistake! Why, it is only the other day I dashed off a Robin Hood in a way that, on canvas, would have fetched any money—any money, sir; but being on wood, I assure you, when going to look at it now and then, I spent the price in beer and bread-and-cheeses. Mark me, however, I don't mean to do anything imprudent. While reproducing on canvas my Robin Hood, and several other things I have lately thrown away upon timber, I intend taking a leaf out of your book. You know Mrs Doubleback?'

'No, I don't.'

'Yes, you do. You took her off for a guinea; and now that I have worked a little upon the nose, to give it a touch of the Grecian!—'

'Grecian! why, it is a snub, an absolute dumpling—and quite an amiable dumpling too!'

'Precisely. That's why it wanted Grecianising. My dear fellow, you would not know it again—the very children said they would not have known it again. But the thing is this: Mrs Doubleback has an extensive circle of acquaintances, and half a score of them are dying to have their portraits taken in the style of our joint work. This seemed, in fact, the beginning of a pretty business looming out upon us—with high art in the background. I at once made arrangements for reopening the studio; and as, of course, I would not leave you out in what you originated yourself, I called at your lodgings—was directed here—and, I declare to you, I was like to drop when I found you with "Oaklands, Clear-starcher," over the door! Here's a metamorphosis, thought I. If it had been carpenter, or glazier, or house-painter, I'd have thought nothing of it; but for a young fellow like him to take to clear-starching is astounding; and I was glad to find the area grated over that I might look in at the window—when, of course, Margery's comely face reassured me. Here's to you, Cousin Margery! Now take a sip, old girl.'

On hearing Driftwood's explanation, Robert was not

so much concerned for the victim of high art, for he knew that a guinea portrait, dashed off in his rattling way, would *pay*, and he was in hopes that, with the assistance of his old patroness—the same who had struck off the odd shilling—Driftwood might be able to form a connection wide enough to enable him to live. In fact, his friend's situation was somewhat peculiar; so much so as to account both for his delusion and disappointment. His signs, when viewed at some little distance, did actually bear a very striking resemblance to gallery pictures painted on wood; and his gallery pictures, on their part, could hardly be conjectured to be anything else than signs painted on canvas. For his own part, however, Robert was determined to hold by an employment which he looked upon as more artistic than copying the externals of vulgar faces, and Grecianising snub-noses; and in the intervals of mechanical labour, to give himself up to literature.

A long conversation ensued, during which the artist applied himself zealously to the hot water. He made many attempts to shake his friend's resolution to have nothing to do with the portrait business; and he was more anxious to lead him into a more dignified way of life than the one he had chosen, when he heard of his position in relation to the Falcontowers.

'You don't know the world, my boy,' said he. 'Those Falcontowers are proud; and even if the modern-antique cabinet you are constructing was actually the poem in wood you would make it out to be, you would still be in their eyes a mechanic. Their interest lies entirely in the political way; and the idea of such people exercising it in favour of a mechanic is absurd.'

'I do not mean to put them to the test,' replied Robert. 'If I am not destined to succeed in literature, they can do me no good; and if I am, it is as an author they will acknowledge me, not as a mechanic. I have no intention to repeat my visits at their house just now—I will not even let them know my address. I have proved to myself the hollowness of the superstition that met me on all hands—that an *introduction* to an editor is necessary. I suspected it to be a superstition, because the idea is irrational. Literary wares, when the question is of printing and publishing, are just like any other wares: the purchaser will take the article best suited to his purpose, without caring a straw whether the dealer presents him with a recommendation or not. This may not have been so much the case formerly; but in our day literature and publishing are crowded professions, and in the midst of the eagerness of competition, people are not such fools as to stand upon antiquated and useless ceremony. It is my intention, then, to go on with the experiment I have so favourably begun; and if I ever advance so far as to support myself by literature alone, I will take my chance of being able to recall my name to the remembrance of Miss Falcontower and her father. In the meantime, I prefer what you call a mechanical employment, to your own, because it is less dependent upon the caprice of employers. A steady, skilful workman holds his place of right, and has no need to flatter snub-noses.'

'Very well,' said Driftwood, who had been sipping absently a new dose of the hot water, 'take your own way, my lad. Ambition is the fault of some natures: it is the fault of mine. Only to think of the fatality that pursues me! Signs and gallipots, however, have no chance in the long-run; high art will have me. How can I help it? I let them pull, and go just as I am dragged. One day on a ladder, another in a studio: isn't it queer? If that rascally boy would only be in the way to open the door: but there's another fatality—he never will. Margery, old girl, stick to the clear-starching. You have a cousin, it is true, who is one of the modern masters; but he don't despise clear-starching. On the contrary, he will look in every now and then of an evening, and take his gin and water with

you, precisely as he would do if you were a countess—a countess, Margery, in your own right. I say, Oaklands, I'll give your compliments to my friend Sir Vivian the next time I see him. And you'll see him, too, sooner than you think for. Good-night, old fellow!'

After he had left the house with overdone steadiness, a tap made them look up, and with some amusement they saw his nose describing, as artistically as before, a wide circle on the window pane. The artist beckoned gravely to his cousin, and she went out.

'Margery,' said he, 'I want to know who that young fellow is. You wrote to me that he was a young gentleman; and his words are high—but his notions confoundedly low. Who and what is he?'

'He is a gentleman,' replied Margery, 'but I cannot tell what gentleman—at least not yet. It will all come out in time, never fear!'

'Why is his name Oaklands?'

'Never mind his name, John. Oaklands does as well to be called by as any other name.'

'Then it is to be a mystery?'

'Of course, a mystery till the denowment. I wish I was as sure of a hundred pound as he is of—no matter what. But it will all come out in time, John—I give you my word for that. I was never mistaken in anything of the kind in my life.'

'Very well, Margery; do you think he would take it kind if I went back and took another glass with him?'

'Not to-night, John—another night will do better.'

'Then give my compliments to Mr Oaklands, and tell him—with Mr D.'s compliments—that I don't look down on clear-starching. Good-night, cousin Margery.'

The reopening of the studio disarranged Robert's plans completely, for it preserved uninterrupted the line of communication between the Falcontowers and him; and immediately on the return of the family to town, he received from them, through Driftwood, a brief note, written very carefully in a fashionable female hand. It contained only these words:—'Sir Vivian and Miss Falcontower having now returned to town, will be happy to see Mr Oaklands as usual.' This, he felt, considering all things, to be stiff enough; but, on second thoughts, it seemed kinder than a formal invitation to dinner. It placed him on the footing of an *habitué*, and signified that his company was considered desirable, whether on special occasions or not. He determined to obey the summons without loss of time, and to bring with him something that should prove to Miss Falcontower that he had not been altogether disheartened by the coldness with which she had evidently regarded his attempt to paint her portrait. This was a likeness, on a small scale, of Mrs Margery, whereon he had bestowed infinite pains, and in which, in his own opinion, he had reduced to practice that theory the young lady, in her conversation with her father, as the reader may remember, had considered indicative, by its very subtlety, of the want of artistic genius.

Again he found himself in the magnificent drawing-room, and again the same slow and gliding figure came up the long vista. Entirely the same. No country bloom, no glow of travel, no new feeling, no awakened thought, was visible on that lovely cheek. Time appeared to stand still with her; and Robert, as on a former occasion, could have fancied that the intervening month was a dream, and that in reality he had parted with her on that spot only the day before. Claudia's observation of her visitor was very different. There was now an independence in his air, an almost overbearing look in his proud eyes, like that of one who feels his place in the world, and presses on to a known future. His simplicity of character, however, remained, and that was the grand distinction between the two, for in reality there was much that was congenial in their natures, placed so far apart by the action of

circumstances. This simplicity she comprehended only as one comprehends a character of high romance, remote from the reality of life, and it had therefore a poetical charm for her imagination, which frequently, in her solitary musings, and in the pauses of the artificial world, brought him before her like a phantom. She had read the change in his air and aspect even before her eyes were near enough to lighten with their accustomed radiance on his face, and she put her hand into his with unmistakable cordiality, as if she had said: 'Well done, brave spirit!'

'I have read your paper,' said she, when the stereotyped phrases had been hurried over, 'and there is much in it I admire. I am myself only a woman, and surrounded with conventionalities as with a net-work; but I can sympathise in the outspeaking of a high, strong spirit, even when it is directed against my own tastes or prejudices, and even when its aspirations are impossibilities. You still follow art, I see.'

'I have brought you this portrait to look at. It proves, in my opinion, that, with good training and steady industry, I might become a painter; but it has likewise demonstrated that the attempt at present would be vain, since this little piece has cost more time and thought than could be compensated by ten times the price it would bring as the production of an unknown artist.'

'It is indeed full of promise,' said Claudia, who did not seem displeased at the failure of his hopes; 'and it shews me practically what your notion of the ideal is. This is the etherialised face of a comely, comfortable woman below the middle class, and is too poetical, I fear, to be true.'

'It is on its poetical truth I pique myself. I have tried to express in it natural affection, elevated, or at least changed, from an instinct to a sentiment, and overspread with a colouring of romantic feeling.'

'It was a brave attempt,' said Claudia, with one of her smile-flashes, containing on this occasion a tinge of the sarcastic; 'and considering the difficulty of the object, far from unsuccessful. If you will leave it with me for a while, I may be able to collect some opinions for you. But, since your pictures are not remunerative, you have probably extended your literary connection?'

'No: I am trying a new subject of importance for the work you have seen; and the little money I require for my support, I obtain by handicraft employment.' Claudia was too high-bred to start, but she looked instead, and her eyes glanced involuntarily at the splendid room. 'I am aware,' continued Robert, breaking into a downright smile, 'that I am here out of my place; but what is to be done? While trying my fortune in literature and art, I must live, and I cannot exercise a very arbitrary choice as to the means. If instead of using any taste, ingenuity, and power of research I may possess in constructing a cabinet, I had recourse to the gaming-table, or the betting-room, or even to the den of the picture-copier, that would not be looked upon as throwing any obstacle in the way of my access to the drawing-room: but surely I have chosen the more respectable and honourable means of living!'

'You are eccentric, Mr Oaklands,' said Claudia, recovering, 'that is all: you are only reducing to practice your own theory of respect for work.'

'Respect for work,' added Robert, 'in its own way and place. If I were only a mechanic, I should be entitled to respect only in my own station, and it would be absurd in me to be here for any other purpose than that of taking your orders; but I claim to be an aspirant of literature and art, and while my experiments are in progress, I choose to support myself by honourable rather than dishonourable labour. There is no substantial reason why the work of the hands should be reckoned degrading in an old community any more than in a new; and if our gentry enabled their sons,

by means of polytechnic schools, to make the election I have made, there would be far less risk than there now is of England's greatness being overtopped by that of younger nations.'

'Well, then,' said Claudia with undisguised warmth, 'you are *not* eccentric, but only manly and high-minded, and you will be welcome in this room even if you write upon your door, "Robert Oaklands, cabinet-maker!"'

This was in reality what it seemed to be—a burst of generous feeling; although Claudia at the same time knew very well that the business of the present meeting was to propose something to him which should take the place of his present occupations, cabinet-making and all. As the time of which we write is our own, it would be disturbing the genial feelings we wish to inspire, to enter into political questions, and explain the position of Sir Vivian in connection with a ministry of which he was not a member. It will be sufficient to say that his family influence was strongly reinforced by services he was but little able to perform in his own person—services that were directed rather than aided by an astute and somewhat unscrupulous mind, which owed all its happier inspirations to one who passed in society for merely an accomplished, beautiful, and somewhat eccentric young woman. If it was our hint to speculate on such mysteries, we might venture to surmise that to her anomalous métier of politics Claudia owed the ruin of those hopes that are usually dearer to a woman; but, at all events, there appeared in her present enterprise to be nothing that was likely to introduce dissension between her and her new ally, for the measures that required the aid of an energetic yet philosophical pen, were instalments, at least, of those which Robert conceived to be essential to national safety and national progress.

Let it not be understood, however, that Claudia developed her plans, or exhibited her own position, with any suddenness that could startle, or any obtrusiveness that could suggest an idea of the unfeminine. She led him to her father in his book-room, as an elegant library was humbly styled, and in the conversation that ensued, took a very moderate part when she took any at all. The interview terminated in Robert's abandoning his present pursuits, both intellectual and mechanical, and giving himself up for the time to political literature. This Sir Vivian, for his own sake—for so the understanding ran—put it into his power to do by the grant of a very small pecuniary subsidy, while he held out the prospect, that at some future time, when the anonymous could be advantageously dropped, and Robert's services be brought forward in the aggregate to back his own family influence, the ministry would be unable to refuse to him, what he could honourably demand—a respectable post in public business. Our adventurer, knowing the embarrassed circumstances of Sir Vivian, was unwilling, if it could have been avoided, to impinge upon his means at all; but he was somewhat reassured by the exceeding smallness of the sum proposed. He was, as yet, ignorant of the economy practised as a rule in such matters by great men, whose most favoured dependents are very little to be envied on the score of present profit. He was not long of learning, however, that the salary of the ostensible private secretary of even the first grandees of the kingdom is rarely, if ever, more than three hundred pounds a year. This position, or anything like it, he did not himself hold. He was to be considered rather as an almost amateur labourer, writing out his own theories, which chanced to tally with the practical plans of Sir Vivian Falcontower and the government.

The intimacy which this connection occasioned between Claudia and the young author was of a very peculiar kind. It seemed at first to be merely a contact of the two intellectual natures; but opinions even on the most abstruse subjects are so much modified by personal character, that in order to comprehend

the one it is necessary to study the other. Literature, besides, is a sort of free-masonry, which sets aside conventionalities, and brings individuals together on a common ground, and with a more than common sympathy; and thus it happened that in that quiet room, where Sir Vivian was only occasionally present, the waif of the common and the high-born and high-spirited woman of fashion came very soon to stand upon equal terms. Claudia at first attempted to play the dictator, and was surprised, and, indeed, a little ruffled, to find that she was unsuccessful. But what could she do? The conventionalism that was by turns her tyrant and her tool, was here wanting, and in its stead a straightforward simplicity there was no getting over. The unselfish views, the noble aspirations, which met her at every point, could not be treated with ridicule *here*. They must be encountered, and with no other defensive armour than the cold materialism of the world. And what was even worse, she must stand the calm soft gaze of his eyes, which, instead of being awed or confused, plunged through the most brilliant flashes of hers, and seemed to penetrate to her very soul. She became, in fact, afraid of him; but her fear had the effect of fascination, and the haughty beauty, whose presence would have been looked upon as an illumination in any drawing-room in the kingdom, came hither day after day to gleam like a taper by the side of a torch.

On his part, Robert was far from underrating this charming and accomplished woman. He found in her knowledge of the world everything he himself wanted, and relied with absolute confidence upon her nice tact and exquisite discrimination. But he felt that there was something between them—something apart from station and worldly distinction. Claudia felt this too; and she was curious to know what it was that enabled this strange young man to gaze calmly into eyes that had confounded before now the noble and the proud. Not that the young man could be to her anything more than an object of abstract speculation: the idea was preposterous, and the high-born and haughty beauty flushed with shame as it was suggested by her father remarking casually one day on the interest she appeared to take in his protégé. The interest, notwithstanding, did not diminish, and she would have given much to know what the impassible being really thought of her.

'I sometimes wonder, Mr Oaklands,' said she at length, 'what your real opinion is of one you have found so different from yourself. It can hardly be complimentary, yet I am able to stand the truth, and I am sure from you I shall hear it.'

'I flatter myself,' replied Robert, 'that the difference between us is far from being great—that, irremediable as it may be, it is merely accidental. I see many bright and glorious things in your original nature, which I would fain have some part in myself. I see the germs of high thoughts and noble actions, requiring only opportunity to spring; and I see the mental faculties, keen, polished, perfect, ready for the loftiest uses. But—'

'Ah, that but!'

'All this I see through an incrustation, that has gathered round them, forming no part of your real character, entirely distinct from your actual nature, and the result alone of the gradual deposits of the conventional world in which it has been your lot to live from childhood; yet an incrustation—though of crystal-line transparency to the eyes that are privileged to observe you in your unguarded moments—as hard and smooth and strong as adamant. For myself, my nature is sufficiently like your own to enable me at least to appreciate and admire it; but the circumstances in which I have had my being have left me to some extent in the state of unsophisticated rudeness in which I was born.'

'But that incrustation,' said Claudia in a low voice,

'which is the barrier between our souls—is there no chemistry to dissolve—no force to break it in pieces?'

'By force it might be broken in pieces: by the same force that shattered your fortunes, that hurled you from station and power, and placed you on the low platform of life to struggle with the common crowd. As for chemistry, the romancers would tell you, on that point, of the Universal Solvent, a delusion, in its material form, of the dreaming alchemists, but existing as an actual entity in moral science—a power fit to disintegrate your moral self, to precipitate as dregs everything incidental, artificial, conventional, and leave your original nature pure, sparkling, and beautiful—an unguent that, when applied to those radiant eyes, would enable them to see treasures in the earth richer than the hoards of a thousand kings. And to this enchantment the romancers would give a name you have met with in poetry and fiction, admiring without feeling, worshipping without faith the idolom it designated—the name of Love. But—'

'Ah, but again!'

'But I am no romancer.'

SHOTS AND SHELLS.

If the world will go a-fighting, we of the peaceable class may at least try to understand what the Quixotes are about. With this view we have inquired curiously into the nature of the missiles which, with the aid of villainous saltpetre, they let fly at one another; and the replies we have received enable us to give some account of those diabolical messengers of battle that 'hurtle through the darkened air,' under the name of shots and shells.

The term *shell*, in military language, signifies a hollow globe of cast iron, the central cavity being destined to contain either gunpowder alone, or a mixture of gunpowder and bullets: if the latter, the shell is termed a shrapnell from the gallant captain, its inventor; and also a 'spherical case-shot.' When filled with gunpowder alone, it is simply a shell, or occasionally a bomb-shell.

The ordinary shell, or bomb-shell if the reader pleases, is a very old invention, dating from at least the beginning of the sixteenth century, and attributed, with strong probability, to the Venetians, who employed this missile with great effect against their enemies the Turks. Its construction is sufficiently simple, consisting as it does of a hollow cast-iron sphere, with an aperture plugged at pleasure, just as a bottle is with a cork. The contents of this round iron bottle are gunpowder; and the intention is, that at a certain given period, the powder shall ignite, and burst the shell into fragments. These fragments spreading far and wide, commit sad devastation by virtue of their projectile force; in addition to which, the ignited gunpowder sets fire to any combustible body with which it may come in contact.

When the shell is projected from a gun, and has arrived at, or at anyrate *very near*, the object intended to be struck, the ignition is accomplished by means of a contrivance termed the *fuse*. Now, every child who has amused himself with a squib or a blue-light, will easily comprehend the nature of a fuse, which is a hollow cylinder of wood or metal stuffed hard with a comparatively slow-burning gunpowder or composition—not capable of explosion, but occupying a certain definite number of seconds before it can reach the internal charge. When shells were first introduced, and for a long time subsequently, they were shot out of short stumpy pieces of artillery denominated mortars. At present, they are not thus restricted, all but the very largest being now shot out of cannons and howitzers—the latter a sort of compromise between a cannon and a mortar. It will be perceived that the regulation or timing of a fuse—in other words, the adjustment of its length, in such a way that its fire may communicate

with the central charge exactly at the proper instant—is a matter requiring much delicacy of hand, much calculation, and much experience. If explosion takes place too soon, the whole effect of the discharge is lost; if too late, then the missile is no better than a common round shot. Thus, at Waterloo, many of the French shells did no further harm than bespatter our troops with dirt, on account of the too great length of their fuse. The shells failing to explode in the air, fell, and buried themselves in the ground, where, finally bursting, they spouted up torrents of mud; and that was the extent of the damage they effected.

Perhaps, now, the reader will ask how the fuse is lighted? Why, by the blast of the gun itself—although the discovery that it might thus be lighted was the result of accident. For a long time subsequent to the introduction of shells, the fuse had to be lighted as a preliminary operation—a perilous arrangement, for if the gun missed fire, wo to the gunner!

Many attempts have been made, within the last few years, to effect the ignition of shells without the aid of a fuse—that is to say, to ignite them on the principle of the percussion-cap; and if this could be accomplished, they would acquire a great accession of power for many special purposes. Many cases may be imagined in which a shell of this kind would possess a manifest advantage over the common sort; for example, when brought to bear upon ships. The mere bursting of a shell near a ship, is not necessarily attended with serious consequences; but the great point to be achieved would be the explosion at the very moment of contact. The explosion of so large a quantity of gunpowder upon or within a ship's timbers, would be productive of an effect so easy to understand, that it need not be described. This consummation is scarcely likely when shells with fuses are employed, seeing that the very force of concussion has a tendency to extinguish the fuse, to say nothing of the chances in favour of a shell's bursting before it arrives in dangerous propinquity to the ship.

All attempts to apply the percussion principle to shells have, so far as relates to artillery, been futile. If the problem of rifling the bore of cannon, however, was solved, there would be no difficulty in the case, for these projectiles, as a matter of curiosity, have been frequently shot from rifled small-arms, and have exploded on striking their object with almost unflinching certainty.

Having described the ordinary shell, it might seem natural that we should proceed at once to the shrapnell; but certain reasons, the nature of which will be presently evident, induce us to preface that description with some notice of canister-shot. Has the reader ever seen a tin case of preserved provisions? No doubt he has; and he will, therefore, be at no loss to understand the nature of a canister-shot. Instead of a mere case of tin plate, let him imagine one of sheet iron; instead of dainty provisions, let him fancy the case stuffed full of small iron balls, something larger than musket-balls; and he will then have a good notion of canister-shot.

Now, the sheet-iron canister, although quite strong enough to withstand all the knocks, bumps, and other disturbing contingencies of transport, is by no means strong enough to withstand the explosive force of gunpowder; hence, no sooner is it discharged from a cannon, than its walls, splitting asunder, liberate the bullets, which are then scattered just like a charge of small-shot. The devastating effect of this projectile may be readily imagined; but its range is insignificant. Perhaps a distance of 300 yards may be considered the most effective. Many of us have doubtless heard the assertion made, that a musket will kill a man when fired at the distance of a mile; nor, perhaps, is the assertion incorrect, if we make one trifling proviso—namely, that the man aimed at be hit. But the effective range of a musket is scarcely more than 100 yards;

that is to say, if a musket properly charged, screwed in a vice for the purpose of maintaining its exact line of aim, pointed at a target about a yard square, and 100 yards distant, be fired many times in succession, the target will be invariably hit, although not by any means in the same spot. At a distance of 600 or 700 yards, the bullet might be deflected to the extent of 100 yards in any direction; and at the distance of a mile, its deflection would be so great, as to go beyond calculation. Nothing like accuracy of aim, we repeat, can be depended upon with the musket beyond a distance of 100 yards. From a consideration of this circumstance, it follows that artillerymen, with comparative impunity, may discharge canister-shot against a platoon of musket-armed infantry. The Minié rifle, however, and, indeed, many other varieties of rifle, are capable of hitting a mark at 800 yards' distance, and even more, with greater certainty than a musket at 100 yards; and therefore, long before a piece of artillery could be brought up within canister-range, its horses or gunners would be crippled or killed, and the gun thus rendered ineffective. Hence it follows, that since the introduction of the Minié rifle, the advantages of canister-shot are far less than they formerly were under the old musket system.

We are now prepared to enter upon the consideration of shrapnell-shells, or spherical case-shot. Let the reader picture to himself a common bomb-shell, not filled with gunpowder alone, but with a mixture of gunpowder and bullets; as many of the latter being first inserted as the shell will hold, and gunpowder thrown in afterwards until all the interstices are filled up. Let him furthermore imagine an instrument of this description to be supplied with a fuse, and he will have a true notion of the terrible shrapnell-shell, or spherical case-shot. From a consideration of the various parts of which this missile is composed, he will see that, being discharged from a cannon, it first travels like a common round shot; but a certain range having been described, and the burning fuse having ignited the gunpowder within, it will burst in pieces, with all the effect of a canister-shot. The shrapnell, then, admits of being regarded as a canister-shot intended to take effect at a very long range; and the greatest nicety is requisite in apportioning the effective length of the fuse to that distance. In practice, this apportionment is effected by means of a 'fuse auger' or borer, which scoops out determinate lengths of the composition. The effective range of such shells is very great: they will do good execution at 1000 or 1400 yards, and are highly dangerous at still greater distances; thus, as it would seem, conferring on artillery a preponderating advantage over the Minié rifle. Still, we must not conceal the fact, that the question as to this comparison is still open. The Minié rifle has scarcely been tried in the open field of war. During the progress of the siege of Rome, it did good execution against artillery; the *Chasseurs de Vincennes*, armed with the Minié rifle, having kept up such a destructive fire against the Roman embassies, that the artillerymen could not stand to their guns. In the open field, it is argued by the opponents of the Minié rifle, cannon would have the advantage, inasmuch as the latter, instead of being stationary, and thus affording a constant mark for the sharpshooters, would be constantly altering their distance, and thus disturbing the aim of the enemy. No doubt, the remark has much truth in it—but how much, only actual practice in the field can determine. The fact, however, is certain, that the general introduction of Minié and other long-range rifles, will rob canister-shot of much of its terrors; indeed, some experienced men urge the total abandonment of the latter in favour of shrapnell-shells, the fuses of which can now be regulated with such accuracy, that their explosion at any given distance, compatible with their range, may be absolutely depended upon.

On some future occasion, since we have donned our fighting-gear, we purpose offering a few remarks on the Congreve Rocket, another terrible instrument of destruction, concerning the nature and powers of which very little is popularly known.

NEGRO SATURNALIA.

On the festival of Nosso Senhor do Rozario, the slaves elect from their own body a king and queen, whose dignity is confirmed by their masters. They must be *bond fide* slaves; no free negroes are eligible, although many coloured freemen take part in the festivity. However, not only the royal pair are elected by the populace, but a whole series of princes and princesses, together with ministers, courtiers, and ladies of honour, swell the state of the new potentate. All these dignitaries are decked out as finely as possible with old uniforms, cast-off court-dresses, silk shoes, cloaks, and indeed whatever they can scrape together—real gold and diamonds being held in especial respect. In the residence of Dr Lund, I saw a little princess, the daughter of his major-domo, who was literally burdened with gold chains, and thus wore a considerable amount of precious metal. Much of this belonged to her parents, and much had been borrowed. On these occasions, the negroes willingly assist each other, for only the dignitaries, not the voluntary participants in the festival, are allowed to be thus finely adorned. The king has a paper crown on his head, and a gilt sceptre in his hand; the queen is adorned with a diadem, and the officials generally wear laced hats. With this pomp and circumstance, the monarch, accompanied by all his subjects, standard-bearers, minstrels, guards, &c., marches to church to the sound of the drum, and of a sort of tin rattle, there to be consecrated by the priest. This ceremony is followed by a solemn procession through the village, terminating in a general banquet. The expenses of the banquet are usually defrayed by the owner of the queen; but the other expenses, especially the fees of the church, are usually covered by the voluntary contributions of the persons present. After dinner, there is a general merry-making at the expense of the parties themselves, which lasts till a late hour of the night, and often leads to another procession by torch-light. The festivities are continued even to the second and third day, until the purse is drained, and a general exhaustion follows, as the natural consequence of overexcitement. Then all gradually return to their old habits. The king and queen lay down their dignities, ministers and ladies of honour put off their court-dresses, and the gold ornaments repose once more in their caskets, or in the hands of their real owners. Vain and unmeaning as all this solemnity must appear to the cultivated spectator, who will see in it nothing but empty grimace and poor wit, the festival is of the utmost importance in the eyes of the negro, who would not, even for a handsome remuneration, consent to work on the great day of rejoicing.—*Burmeister's Travels to Brazil.*

A REASONING FOX.

A certain Jägare, who was one morning keeping watch in the forest, observed a fox cautiously making his approach towards the stump of an old tree. When sufficiently near, he took a high and determined jump on to the top of it; and after looking around awhile, hopped to the ground again. After Reynard had repeated this knightly exercise several times, he went his way; but presently he returned to the spot, bearing a pretty large and heavy piece of dry oak in his mouth; and thus burdened, and as it would seem for the purpose of testing his vaulting powers, he renewed his leaps on to the stump. After a time, however, and when he found that, weighted as he was, he could make the ascent with facility, he desisted from further efforts, dropped the piece of wood from his mouth, and coiling himself upon the top of the stump, remained motionless as if dead. At the approach of evening, an old sow and her progeny, five or six in number, issued from a neighbouring thicket, and, pursuing their usual track, passed near to the stump in question. Two of her sucklings followed somewhat behind the rest, and just as they neared his ambush, Michel, with the

rapidity of thought, darted down from his perch upon one of them, and in the twinkling of an eye bore it in triumph on to the fastness he had so providently prepared beforehand. Confounded at the shrieks of her offspring, the old sow returned in fury to the spot, and until late in the night, made repeated desperate attempts to storm the murderer's stronghold; but the fox took the matter very coolly, and devoured the pig under the very nose of its mother; which at length, with the greatest reluctance, and without being able to revenge herself on her crafty adversary, was forced to beat a retreat.—*Lloyd's Scandinavian Adventures.*

A GHOST AT THE DANCING.

A WIND-WAVED tulip-bed—a tinted cloud
Of butterflies careering in the air—
A many-figured arras quick with life
And merry unto midnight music dumb
—So the dance whirled. Do any think of thee,
Amiel, Amiel?

Friends greet, and countless rills of pleasant talk
Meander round, scattering a spray of smiles.
—I know 'twas false! I know, one minute more
And thou wilt stand there, tall and quiet-eyed,
And all these fair shew black beside thy face,
Amiel, Amiel!

Many here loved thee—I nor loved, scarce knew.
Yet in thy place I see a shadow rise,
And a face forms itself from empty air,
Watching the dancers, grave and quiet-eyed—
Eyes that do see the angels evermore,
Amiel, Amiel!

On such a night as this, midst dance and song,
I bade thee carelessly a light good-by—
'Farewell,' thou saidst—'A happy journey home!'
Did the unseen death-angel at thy side
Mock those low words: 'A happy journey home,'
Amiel, Amiel?—

Ay—we play fool's play still—thou hast gone home.
While these dance here, a mile hence o'er thy rest
Drifts the deep New-year snow. The cloudy Gate
We spoke of, thou hast entered. I without
Grope ignorant, but thou dost all things know,
Amiel, Amiel!

What if, I sitting where we sat last year,
Thou cam'st—took'st up our broken thread of talk,
And told'st of thy new home—which now I see,
As children wandering o'er dark winter fields,
See on the hill the father's window shine,
Amiel, Amiel?

No! Thy fair face will glad me nevermore.
Thy pleasant words are ended. Yet thou livest;
'Tis we who die.—I too shall one day come,
And, viewless, view these shadows, quiet-eyed:
Then flit back to thy land—the living Land,
Amiel, Amiel!

The striking paragraph, entitled 'Errors there is no Rectifying,' in No. 5, was extracted from an article in the *Leader* newspaper. The omission of the quotation was the effect of a blunder which took place in the correction of the proof of the number. It is, of course, our earnest desire to quote where quotation is due, in order that the public may know when we are original, which is the case in nineteen-twentieths of our sheet.—Ed.

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